What is claimed is:

1. A method for aligning a ring surface of a retainer ring with a wafer-engaging surface during a chemical machining polishing operation, comprising the operations of:

mounting the wafer engaging surface on an axis of rotation;

mounting the retainer ring on and for movement relative to the wafer engaging surface and relative to the axis of rotation with the retainer ring free to move other than parallel to, and parallel to, the axis of rotation; and

resisting the freedom of the mounted retainer ring to move other than parallel to the axis of rotation.

2. A method as recited in claim 1, further comprising:

urging the wafer-engaging surface and the ring surface toward a polishing member to provide forces on the wafer-engaging surface and on the retainer ring;

transferring the respective forces from the wafer-engaging surface and from the ring surface to a carrier for the wafer-engaging surface; and

measuring the respective forces transferred to the carrier.

3. A method for calibrating an active retainer ring having a ring surface that is movable with respect to a wafer-engaging surface during a chemical machining

polishing operation in which the ring surface touches a polishing surface, comprising the operations of:

mounting the wafer-engaging surface on an axis of rotation;

mounting the retainer ring on and for movement relative to the wafer-engaging surface and relative to the axis of rotation with the retainer ring free to move other than parallel to, and parallel to, the axis of rotation;

resisting the freedom of the mounted retainer ring to move other than parallel to the axis of rotation;

fixing the position of the wafer-engaging surface along the axis of rotation;

placing the retainer ring in contact with a calibration fixture;

applying pressures to a drive attached to the retainer ring to urge the ring against the calibration fixture; and

for each of a plurality of different ones of the pressure, measuring the value of forces applied by the retainer ring to the fixture.

4. A method as recited in claim 3, further comprising:

selecting a pressure to be applied to the drive;

using the measured forces, convert the selected pressure to a corresponding force of the retainer ring applied to the polishing surface; and

increasing a desired polishing force to be applied to the wafer-engaging surface during a chemical machining polishing operation by the amount of the corresponding force of the retainer ring applied to the polishing surface.

5. A method for reducing a cause of differences between an edge profile of a chemical mechanical polished edge of a wafer and a center profile of a chemical mechanical polished central portion of the wafer within the edge, comprising the operations of:

mounting the wafer on a carrier surface of a wafer carrier so that a wafer axis of rotation is universally movable relative to a spindle axis of rotation of a wafer spindle;

limiting movement of the wafer on the carrier surface perpendicular to the wafer axis by movably mounting a retainer ring on and relative to the wafer carrier to provide a reveal; and

during both the mounting and the limiting operations resisting the relative movement of the retainer ring other than parallel to the wafer axis.

6. A method as recited in claim 5, wherein:

the resisting operation is performed by:

configuring linear bearing components so that a direction of permitted movement between the wafer carrier and the retainer ring is parallel to the wafer axis; and

mounting the linear bearing components on the respective wafer carrier and retainer ring.

7. A method as recited in claim 5, wherein the cause of the differences between the edge profile and the center profile is a lack of co-planarity between a wafer plane defined by an exposed to-be-polished surface of the wafer and a ring plane defined by an exposed polishing-member-engaging surface of the retainer ring; and wherein:

the operation of mounting the wafer on the carrier surface renders the wafer plane universally movable relative to the spindle axis; and

the operation of resisting the relative movement of the retainer ring other than parallel to the wafer axis enables the wafer plane and the ring plane to be co-planar during chemical mechanical polishing.

8. A method for controlling a positional relationship in a chemical mechanical polishing system, the method comprising the operations of:

configuring a wafer carrier plate with a carrier plate surface to mount a wafer for contact with a chemical mechanical polishing surface;

mounting a retainer ring assembly on and for movement relative to the wafer carrier plate to retain the wafer in a desired position on the carrier surface, the retainer ring assembly having a ring surface configured to contact the polishing surface; and

mounting a bearing assembly between the wafer carrier plate and the retainer ring assembly to limit the movement of the retainer ring assembly relative to the carrier plate so that the ring surface is positioned parallel to the carrier plate surface.

9. A method as recited in claim 8, wherein:

the mounted bearing assembly is configured with a bearing housing and a bearing shaft;

the bearing housing is mounted on one of the wafer carrier plate and the retainer ring;

the bearing shaft is mounted on the other of the wafer carrier plate and the retainer ring assembly; and

the bearing shaft is received in the bearing housing.

10. A method as recited in claim 8, further comprising the operation of:

mounting a drive between the wafer carrier plate and the retainer ring assembly to control a reveal position of the ring surface relative the carrier plate surface.

11. A method as recited in claim 10, wherein:

the bearing assembly is effective during the control of the reveal position of the ring surface relative the carrier plate surface to maintain the ring surface parallel to the carrier plate surface.

12. A method as recited in claim 8, further comprising the operations of:

configuring a spindle to mount the wafer carrier plate for rotation, the spindle having a base closely adjacent to the wafer carrier plate, the base being configured to receive a first gimbal member; and

configuring a second gimbal member to cooperate with the first gimbal member and secured to the wafer carrier plate to allow the wafer carrier plate to be positioned in any position in a range of polishing positions in which the carrier plate surface is parallel to the polishing surface;

wherein with the carrier plate surface parallel to the polishing surface the bearing assembly is effective to limit the movement of the retainer ring assembly relative to the carrier plate so that the ring surface is positioned co-planar with the polishing surface.